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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/616,232		Lothar Merk	DE9-1999-0046-US1	7254

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11/05/2002

Anne Vachon Dougherty Esq
3173 Cedar Road
Yorktown Heights, NY 10598

EXAMINER

MAHMOUDI, HASSAN

ART UNIT

PAPER NUMBER

2175

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/616,232

Applicant(s)

MERK ET AL.

Examiner

Tony Mahmoudi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is missing. In the transmittal letter filed on 14-July-2000 applicant did not check the box indicating the declaration and power of attorney is attached to the application.

The applicant is requested to submit the oath or declaration in the response to this office action.

Specification

2. The abstract of the disclosure is objected to because it contains more than 150 words. The abstract should be edited to contain no more than 150 words. Correction is required.
3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "aid," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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Claim Objections

4. claims 2-3, 8, 12, 18, 21-24, 27-32, and 34-36 are objected to because of the following informalities:

In claim 2, line 4, and claim 38, line 6:: “b’eing” should be --being--.

In claim 3, line 2, claim 5, line 2, and claim 19, line 1: claim refers to “steps a-d” of claim 1. Claim 1 only has three steps, identified as steps a-c. Therefore, the reference to “steps a-d” of claim 1 should be changed to --steps a-c--.

In claim 8, line 1; claim 27, line 1, claim 28, line 1; claim 35, line 6; and claim 36, line 6, “characterised” should --characterized--.

In claim 12, line 1: “whereni” should be --wherein--.

In claim 18, line 4: Claim language should end with a period.

In claim 21, steps aa) and bb); claim 22, steps aa) and bb), claim 35, steps a) and b); and claim 36, steps a) and b): sub-claims language should end with a semicolon.

5. Claims 4, 7, 14, 16, 20, 22, 24, 26, 28, 30, 32, 34, and 36 are further objected to because they are dependants from objected to independent claim 2.
6. Claims 23, 29, and 31 are objected to because they are dependent from objected to dependent claim 21.

Double Patenting

7. Claim 6 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 5. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
8. Claim 11 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 10. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).
9. Claim 18 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 17. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-12, 17-24, 27-28, and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al (U.S. Patent No. 6,438,559) in view of Kumar et al (U.S. Patent No. 6,343,287.)

As to claim 1, White et al teaches method of producing a compact representation of a data package (see Abstract), the data package comprising at least one of meta-data and associated data elements and meta-data and associated data packages, where the meta-data comprises at least one of name and type identifications for the data element and name and type identifications for the data package (see column 6, lines 50-67), comprising the steps of:

b) searching of the meta-data for defined, non application-dependent name and type identifications (see column 7, lines 4-10); and

c) representing the identifications found in step b) by defined substitutes which require little storage space (see column 4, lines 17-42.)

White et al does not teach: a) arranging of the data packages in a sequence.

Kumar et al teaches external data storage link for a profile service (see Abstract), in which he teaches arranging of the data packages in a sequence (see column 14, line 58 through column 15, line 4, and see column 21, lines 55-67.)

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al to include arranging of the data packages in a sequence.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al, by the teaching of Kumar et al, because arranging of the data packages in a sequence would enable the system to store the data in related sequences for easier access and for being able to define relationships between the data elements within a database.

As to claim 2, White et al teaches method of producing a compact representation of a structure of meta-data and data elements (see Abstract), with the correlation of meta-data with data, comprising data elements or a sub-structure of a structure being performed by a program (see column 5, lines 50-58, where “correlation of data” is read on “relational database” and with the meta-data comprising at least name and type identifications for the data (see column 6, lines 64-67), comprising the steps of:

a) combining of meta-data and associated data to form a plurality of data packages (see column 6, lines 19-29);

c) searching the meta-data for defined, non- application-dependent identifications (see column 7, lines 4-10); and

d) representing the identifications found in step c) by defined substitutes which require little storage space (see column 4, lines 17-42.)

White et al does not teach: b) arranging of the data packages in a sequence.

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Kumar et al teaches external data storage link for a profile service (see Abstract), in which he teaches arranging of the data packages in a sequence (see column 14, line 58 through column 15, line 4, and see column 21, lines 55-67.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al to include arranging of the data packages in a sequence.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al, by the teaching of Kumar et al, because arranging of the data packages in a sequence would enable the system to store the data in related sequences for easier access and for being able to define relationships between the data elements within a database.

As to claims 3 and 4, White et al as modified teaches the method further comprising the step of:

e) storing the result of steps a-d on a storage medium (see White et al, column 13, lines 49-58.)

As to claims 5 and 6, White et al as modified teaches the method further comprising the step of:

f) transmitting the result of steps a-d to a data processing device (see White et al, column 6, lines 24-29.)

As to claim 7, White et al as modified teaches wherein the meta-data is not transmitted at the same time but the correlation is performed by a program at the time of restoration (see White et al, column 8, line 43 through column 9, line 18.)

As to claim 8, White et al as modified teaches the method characterized in that the data package is an object which contains at least the following data elements with the following non-application-dependent identifications:

object name, object type and object attributes (see White et al, column 11, line 22 through column 12, line 31.)

As to claim 9, White et al as modified teaches wherein in that the data package is an object which contains the following data elements with the following non-application-dependent identifications:

object name, object type, object version and object attributes (see White et al, column 3, lines 50-56, and see column 11, line 22 through column 12, line 31.)

As to claims 10 and 11, White et al as modified teaches wherein the data package is a Java object (see White et al, column 4, lines 7-16.)

As to claim 12, White et al as modified does not teach wherein the data package is in XML (extendable markup language).

Kumar et al further teaches wherein the data package is in XML (see column 11, lines 39-48.)

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al as modified to include wherein the data package is in XML (extendable Markup Language.)

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al as modified, by the further teaching of Kumar et al, because, as explained by Kumar et al, "XML documents are a useful format, because the language is well understood, actively developed, and readily transportable through a variety of communications media using commonly available HTTP transport mechanisms (see Kumar et al, column 11, lines 48-51.)

As to claims 17 and 18, White et al as modified teaches wherein the data package is a data structure which contains data elements with the following non-application-dependent identifications:

name, type, version and attributes of the data element (see White et al, column 3, lines 50-56, and see column 11, line 22 through column 12, line 31.)

As to claims 19 and 20, White et al as modified teaches wherein steps a)-d) are performed by a program, with a table to correlate non-application-dependent identifications with their associated substitutes being contained in the program (see White et al, column 4, lines 36-46, and see column 8, lines 1-10.)

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As to claims 21 and 22, White et al as modified teaches the method comprising the following further steps:

aa) searching of the meta-data for defined, application-dependent identifications (see White et al, column 7, lines 4-10);

bb) representation of the application-dependent identifications found in step aa) by defined substitutes which require little storage space (see White et al, column 4, lines 17-42);

cc) storage of the result of steps aa)-bb) on a storage medium (see White et al, column 13, lines 49-58) or transmission of the result of steps aa) -bb) to a data-processing device (see White et al, column 6, lines 24-29.)

As to claims 23 and 24, White et al as modified teaches wherein for each application a dedicated table containing defined application-dependent identifications and associated substitutes is loaded (see White et al, column 6, lines 64-67.)

As to claim 27, White et al as modified teaches the method characterized in that the substitute occupies a maximum of 2 bytes of storage space (see white et al, column 12, lines 33-44.)

As to claim 28, White et al as modified teaches the method characterized in that the substitute is made up of class, constructed flag and ID (see White et al, column 4, lines 22-26, and see column 12, lines 1-39.)

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As to claims 37 and 38, White et al teaches computer software product which can be stored in the internal store of a digital computer, containing items of software code to carry out a method (see column 5, lines 6-12.)

As to the remainder of claim 37, see claim 1.

As to the remainder of claim 38, see claim 2.

12. Claims 13-16, 25-26, and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al (U.S. Patent No. 6,438,559) in view of Kumar et al (U.S. Patent No. 6,343,287), as applied to claims 1-12, 17-24, 27-28 and 37-38 above, and further in view of Hohle et al (U.S. Patent No. 6,101,477.)

As to claims 13-16, White et al as modified teaches wherein the non-application-dependent identifications object name, object type, object version and object attributes are represented (see White et al, column 3, lines 50-56, and see column 11, line 22 through column 12, line 31.)

White et al as modified still does not teach wherein identifications are represented by defined substitutes in a TLV coding laid down by ISO 8825 Basic Encoding Rules.

Hohle et al teaches a travel-related multi-function smart card method and apparatus (see Abstract), in which he teaches the identifications are represented by defined substitutes in a TLV coding laid down by ISO 8825 Basic Encoding Rules (see column 7, lines 39-43.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al as modified to include the

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identifications represented by defined substitutes in a TLV coding laid down by ISO 8825 Basic Encoding Rules.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al as modified, by the teaching of Hohle et al, because, as explained by Hohle et al, “in a TLV object, information regarding the type and length of the information is included along with the actual data. Thus, a TLV object comprises a tag which identifies the type of data (as called out by the appropriate specification), a length field which indicates the length in bytes of the data to follow, and a value field, which comprises the primary data” (see Hohle et al, column 7, lines 43-49.)

As to claim 25 and 26, White et al as modified teaches wherein the makeup, definition and length of the substitutes are laid down by standard ISO/IEC 7816 or 8825 (see Hohle et al, column 3, lines 5-7, where “makeup, definition, an length” is read on “placement and size”, and see column 4, lines 44-54.)

As to claims 33 and 34, White et al as modified teaches on-chip cache comprising at least one nonvolatile store for storing the compact representation (see White et el, column 5, lines 20-30.)

White et al as modified still does not teach chip card for storing the compact representation.

Hohle et al further teaches chip card for storing the compact representation (see Abstract, and see figure 1.)

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al as modified to include chip card for storing the compact representation.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al as modified, by the further teaching of Hohle et al, because chip card for storing the compact representation, would enable the system to securely and conveniently integrate various important applications (e.g. user personal data, financial data, etc.), and allow the chip card user to conduct various types of electronic transactions using the convenient and secure, wallet-size card when traveling and away from home.

As to claims 35 and 36, White et al as modified teaches apparatus comprising at least:

- a) a data-processing device (see White et al, column 5, lines 12-18);
- b) communications means (see White et al, column 6, lines 42-49);
- c) a chip card, with data being exchangeable between the data-processing device and the chip card via the communications means, characterized in that a program to control a method can be installed on the data-processing device and the result of the method is stored on the chip card (see Hohle et al, Abstract, see figure 1.)

13. Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over White et al (U.S. Patent No. 6,438,559) in view of Kumar et al (U.S. Patent No. 6,343,287), as applied to

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claims 1-12, 17-24, 27-28, and 37-38 above, and further in view of Shaw et al (U.S. Patent No. 6,362,836.)

As to claims 29 and 30, White et al as modified teaches the method comprising the following further step:

bbb) storage of the result of step aaa) on a storage medium (see White et al, column 13, lines 49-58) or transmission of the result of step aaa) to an data-processing device (see White et al, column 6, lines 24-29.)

White et al, as modified still does not teach: aaa) application of a current compression algorithm to the result of steps aa)-bb.)

Shaw et al teaches a three tier client-server architecture (see Abstract), in which he teaches application of a current compression algorithm to the result (see column 15, lines 4-17, and see column 16, lines 54-57.)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al as modified to include application of a current compression algorithm to the result.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified White et al as modified, by the teaching of Shaw et al, because application of a current compression algorithm to the result, would optimize (increase) the network performance, especially for low bandwidth networks, such as a slow WAN or a modem connection.

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As to claims 31 and 32, White et al as modified teaches wherein the compression algorithm is the ZLIB compression algorithm (see Shaw et al, column 21, lines 14-16.)

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent is cited to further show the state of art with respect to methods of data representation in databases, compressing and correlating data elements, and JAVA object serialization in general:

U.S. Patent No. 6,111,660 to Murray et al

U.S. Patent No. 6,298,353 to Apte.

U.S. Patent No. 6,301,585 to Milne.


U.S. Patent No. 6,356,946 to Clegg et al.

15. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

tm

October 15, 2002


DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100